

## *Editorial*

### **The Dominoes Fall: A Timeline of the Squeeze and Crash ...**

**I**n its leader of October 13, 2008, the *Financial Times* characterized the western world's banking system as suffering 'the equivalent of a cardiac arrest.' The collapse of confidence in the system means that 'it is now virtually impossible for any institution to finance itself in the markets longer than overnight.' This occurred less than a month after Lehman Brothers collapsed, without bailout. Six months earlier Bear Stearns had been bailed out after JPMorgan Chase had bought it for \$10 a share, at the regulator's urging. After Lehman fell, who would be next? And if Lehman, who was not at risk? Despite the earlier U.S. government bailouts of the erstwhile government mortgage originators, Fannie Mae and Freddie Mac, and the later bailout of the world's largest insurer, American International Group (AIG), everything changed with the demise of Lehman Brothers.

The *FT* was describing the freezing of the interbank credit market. After Lehman's fall, so-called counterparty risk was seen as prohibitive to prospective lenders, at any price. This was revealed in the TED spread, the difference between the cost of interbank lending, the London Inter Bank Offered Rate, or LIBOR, on three-month loans in U.S. dollars, and the closest instrument to risk-free, three-month U.S. government bonds. In normal times the TED spread is between 10 and 20 basis points (bp), or 0.10 and 0.20 percent per annum, but on October 10, the TED spread reached 465 bp, when a lender could be found. As I write, it has fallen back to below 200 bp.

I sit in a coffee shop that sports the sign 'We are cash only, sorry for the inconvenience :-)'. I'm sure this is to avoid the hassle of credit cards, but such signs were massing off-stage in mid-October. How so? Imagine that banks refused to honour other banks' credit card debts. Then cash would soon become king for retail purchases. But what of letters of credit, used in international trade? What of other bank-backed credit instruments? And cash, fiat money, also relies on trust and confidence—of government. And where the government can't be trusted ... well, look at Zimbabwe.

Thankfully, the U.S., U.K., European and Australian governments understood the abyss that faced the world economy, and the U.K. action at supporting its ailing banks and guaranteeing interbank lending was soon imitated elsewhere. The financial crisis, although severe, has not been catastrophic, although many have been inconvenienced or worse, but few have lost assets. Millions, however, have seen the value of their assets on the stock market dwindle. Of course, the crisis was triggered by the end of the U.S. housing bubble, and these prices have tumbled as the crisis has led to further sales to improve liquidity. Many have also lost their jobs, at first in the finance industry, but now increasingly in the real economy.

But shed no tears for the shareholders or top managers of the U.S. finance companies. The best description I have seen of the process that resulted in the subprime (SP) mortgage meltdown is a piece by Michael Lewis (2008), author of *Liar's Poker*. Lewis gives a very insightful timeline of the unfolding of the crisis.

There are three kinds of indicators: prices and interest rates in financial markets, the performance of firms in the finance industry (at least at first), and then

government responses to the growing crisis. Using Lewis' description and the weekly updates in *The Economist*, I have attempted to put together my own timeline of the past eighteen months, which I present here, with no further analysis. Other sources, apart from on-line newspapers, have been Kate Jennings' (2008) 'American Revolution', and pieces by John Lanchester in the *London Review of Books*. (I find that the succession of shocks means that I soon forget what happened when, and leave the analysis of these events to others.) Except where otherwise indicated, all dollar amounts are U.S. dollars. (I thank Chris Adam for his help.)

- 1999 March: At the Futures Industry Association, Alan Greenspan, Chairman of the Board of Governors of the U.S. Federal Reserve (the Fed) from 1987 to 2006, argues that derivatives should remain unregulated, despite the demise of Long-Term Capital Management the previous year.
- 1999 November 12: The U.S. Gramm-Leach-Bliley *Financial Services Modernization Act* repeals the Glass-Steagall Act of 1933, the purpose of which was to prohibit the emergence of consolidated financial/insurance one-stop-shop corporations, in order to reduce the threat of contagion: banks were not allowed to own insurers or securities companies (and vice versa) and had to operate in a single state, inter alia. Lobbying by Citibank (subsequently to become Citigroup) and others has finally borne fruit.
- 2000 December 13: The U.S. *Commodities Futures Modernization Act*, which allows banks to continue to self-regulate derivatives, is passed.
- 2004 July 21: The U.S. Securities and Exchange Commission (SEC) launches the 'Consolidated Supervised Entities' program, a voluntary program that relaxes the minimum capital requirements for investment banks.
- 2006 April: Merrill Lynch warns that Iceland's banks have unsustainable levels of borrowing.
- 2007: In 2006 Moody's makes more than 40% of its revenues from rating 'structured products' such as Collateralized Debt Obligations (CDOs), a type of asset-backed security and credit product. Likewise Standard & Poor's and Fitch's. Moreover, sub-prime (SP) mortgages can be repackaged into CDOs in a way that makes 'default an extremely low mathematical probability ... If banks were forced to sell securities that had been downgraded, liquidity could dry up.' from *The Economist*, July 12, 2007, 'AAAsking for trouble.'
- 2007: Two thirds of the U.S. SP mortgages issued in 2006 were securitised. Michael Milken calls securitisation the 'democratization of capital.'
- 2007 April: BHP Billiton's friendly approach to Rio Tinto is rejected.
- 2007 June: Global buy-out volumes peaked at over \$150 bn in June.
- 2007 July: Rio Tinto buys Alcan for \$38.1 bn, mainly using debt.

- 2007 July: As high-yield credit-default-swap (CDS) premiums veer upwards, the first news articles appear about the U.S. SP mortgage impact on global credit markets.
- 2007 July 5: Swiss bank UBS's CEO quits. UBS is the world's biggest manager of other people's money.
- 2007 July 17: Two of Bear Stearns' hedge funds, betting on CDOs (backed by SP loans) have lost all \$20 bn invested in mortgage-related debt. The high-yield CDS premium soars in the U.S. and Europe.
- 2007 July 18: Ben Bernanke (Chairman of the Fed since February 1, 2006) acknowledges the increasing risk of the effects of risk-bearing loan delinquencies spilling into other markets.
- 2007 July 20: U.S. banks accept a long-discussed version of 'Basel II', the new global rules that regulate capital adequacy, with a more nuanced approach to risky assets than Basel I.
- 2007 July 26: Corporate-bond or loan deals begin to falter, around \$17 bn in four weeks.
- 2007 July 31: Sowood Capital, a \$3 bn hedge fund, lost half its value in July, and sells out, the biggest hedge fund to collapse. Harvard University reports that its endowment has lost \$330 million.
- 2007 August 2: The TED spread surges. A four-year low in the issuing of investment-grade bonds in July. The five Wall Street investment banks' lending commitments grew from \$50 bn in 2002 to over \$180 bn in 2006.
- 2007 August 5: American Home Mortgage Investment halts operations. IKB Deutsche Industriebank is bailed out for the first time, by a consortium of banks, after losses in U.S. SP mortgages.
- 2007 August 8: George Bush apparently rejects suggestions that Fannie Mae and Freddie Mac be allowed to buy some SP loans from stretched banks.
- 2007 August 9: The European Central Bank (ECB) responds to a sudden liquidity squeeze and a jump in the LIBOR by injecting Euro 98.4 (\$131) bn into the money markets.
- 2007 August 16: Goldman Sachs says its funds have been hit by moves that its models suggest are 25 standard deviations away from usual, a likelihood of 6 times 10 to the power of minus 139. As Warren Buffett remarks: 'Beware of geeks bearing equations.'
- 2007 August 22: Countrywide, the largest U.S. mortgage provider, receives \$2 bn from the Bank of America in return for convertible preferred stock.
- 2007 August 23: The Fed cuts the U.S. discount rate from 6.25% to 5.75%. Citigroup, JPMorgan Chase, Wachovia, Bank of America take up the Fed's offer of 30-day loan terms. The 3-day AA-rated commercial-paper rate rises from 5.3% to 6.0% for

- asset-backed securities. From July 2006 to July 2007, U.S. home foreclosures were up by 93%. Lehman Brothers closes its SP lending arm.
- 2007 August 31: George Bush rules out large-scale federal bailouts, but proposes that the Federal Housing Administration (FHA) help 80,000 SP mortgage borrowers refinance. (Two million Americans will face sharply higher repayments over the next year or so as their honeymoon periods end.)
- 2007 September: John Taylor (2007) argues that in the four years 2002–2005, a positive eponymous ‘Taylor gap’ reveals that U.S. interest rates were too low, resulting in a bubble in U.S. housing prices.
- 2007 September 6: Standard & Poor’s says it has downgraded just 1% of SP residential MB securities, none affecting AAA bonds. CDO downgrades have affected just 1% of securities by value.
- 2007 September 10: Mr Joe Lewis discloses that he has bought 7% of Bear Stearns.
- 2007 September 14: Northern Rock, the U.K.’s fifth largest mortgage lender, is given a liquidity support facility from the Bank of England, following the first bank run in Britain since 1866. Northern Rock is the top U.K. securitiser (selling packaged mortgages), followed by Barclays, HBOS, and RBS. The U.K. government guarantees all deposits at Northern Rock; it already guarantees all small bank deposits.
- 2007 September 18: The Fed cuts the funds rate 50 bp to 4.75%.
- 2007 September 19: The U.K. government offers to lend \$20 bn to commercial banks in an emergency 3-month auction.
- 2007 September 25: The U.S. dollar falls to a record \$1.41 per Euro.
- 2007 October 23: Oil rises to \$90/bbl.
- 2007 October 28: MBIA, a monoline (a company that insures corporate bonds and structured products), makes its first-ever quarterly loss. If a monoline is downgraded, so are the bonds it insures.
- 2007 October 29: Merrill Lynch replaces its CEO after writing down by \$8.4 bn its CDO securities backed by SP mortgages and suffering its first quarterly loss since 2001.
- 2007 November 4: Citigroup replaces its CEO after a possible further \$11 bn in SP write-downs. On November 27 the Abu Dhabi Invest Authority buys 4.9% of Citigroup for \$7.5bn.
- 2007 November 21: The European covered-bonds market (a \$2 trillion source of mortgages) is suspended because of falling prices.
- 2007 November 21: The spread between high-yield corporate paper and Treasury bonds has doubled between June and November, from 260 to 520 bp.
- 2007 November 26: HSBC consolidates \$45 bn of two structured-investment vehicles (SIVs).

- 2007 November 27: Kreditanstalt sets aside \$3.4 bn to cover SP losses at IKB Deutsche Industriebank. Wells Fargo takes a \$1.4 bn charge on home mortgages. The Fed extends \$8 bn in short-term loans until early 2008.
- 2007 November 28: The LIBOR in 2-month Euros is the highest since May 2001.
- 2007 December 12: There is joint central bank action to ease the liquidity squeeze around the developed world.
- 2007 December 18: The U.K. government guarantees all Northern Rock's debts and commits more than \$110 bn, after Northern Rock's share price falls to below a twelfth of its value in five months.
- 2008 January 3: Warren Buffett starts his own bond-insurance company, given the monolines' distress. In February he tries to take over \$800 bn in municipal bonds guaranteed by the monolines MBIA, Anbac, and FGIC.
- 2008 January 10: The CEO of Bear Stearns leaves after \$1.9 bn in mortgage write-downs.
- 2008 January 11: Bank of America announces that it will buy Countrywide for \$4 bn (one-eighth of Countrywide's value seven months earlier).
- 2008 January 15: Hypo Real Estate writes down \$570 million on CDOs.
- 2008 January 17: Citigroup reports a \$9.8 bn Q4 2007 loss, after write-downs of \$18.1 bn on CDOs.
- 2008 January 30: The Fed's policy rate falls 50 bp to 3%, having been cut by 75 bp to 3.5% only eight days earlier, down from 5.25% in August 2007.
- 2008 February 6: BHP's formal offer for Rio Tinto is rejected.
- 2008 February 10: The spread between high-yield commercial paper and U.S. Treasuries exceeds 700 bp.
- 2008 February 13: IKB Deutsche Industriebank is bailed out for the third time, with a \$2.2 bn package.
- 2008 February 14: AIG writes down \$4.9 bn of CDO-related swaps (five times more than its estimate two months previously); AIG has \$62 bn exposure to CDOs with some SP content.
- 2008 February 17: Northern Rock is nationalised after two unsuccessful bids to take it over.
- 2008 March 11: The Fed adds a new bailout vehicle, the Term Securities Lending Facility (TSLF), a new lending facility that allows banks to borrow up to 28 days instead of normal overnight limits; up to \$200 bn.
- 2008 March 12: Carlyle Capital, a mortgage-backed fund, 15% owned by executives of the private-equity firm Carlyle Group, defaults on \$16.6 bn of debt; geared up to 32 times in order to buy AAA paper, it will wind itself up, its liabilities larger than its assets.
- 2008 March 13: No buyers for AAA commercial paper in the U.S.

- 2008 March 14: Lehman Brothers secures a 3-year facility of \$2 bn; it has \$64 bn of unencumbered assets. *The Economist* quotes anon.: 'If Lehman Brothers goes, there are no sacred cows.'
- 2008 March 16: Merrill Lynch has \$1 trillion in assets and \$30 bn in equity; Goldman Sachs has \$1.1 trillion and \$40 bn, respectively. There are about \$45 trillion of CDSs outstanding globally.
- 2008 March 16: Investment bank Bear Stearns, having run afoul of its lending-capital ratios, is bought by JPMorgan Chase at a heavily discounted price of \$2 per share; its shares had been \$170 at the beginning of 2007. Bear Stearns had a gross debt ratio of about 33:1 prior to its demise, and about \$10 trillion in CDSs and interest-rate swaps. Its clients had withdrawn \$17 bn in the previous two days. Less than a week earlier, some said that Bear had enough liquid assets and borrowing capacity to survive for two years.
- 2008 March 16: Counterparty risk as reflected in CD premiums—Bear Stearns 750 bp, Lehman Brothers 470 bp, Merrill Lynch 320 bp, and Goldman Sachs 230 bp.
- 2008 March 17: JPMorgan Chase's market capitalisation rises by \$14 bn the day after buying Bear Stearns for \$2 a share.
- 2008 March 18: Bear Stearns' shares trade at \$6.51.
- 2008 March 18: The Fed cuts its target rate by 75 bp (to 2.25%, down 200 bp in two months), and offers extended (28-day) loans to all bond dealers.
- 2008 March 17–21: U.S. financial stocks rally by 11%; there is a rally in investment-grade bonds.
- 2008 March 24: JPMorgan Chase raises its bid for Bear Stearns fivefold to \$10, but is no longer liable for \$30 bn of Bears' least liquid assets (almost 40% of Bears' assets), now assumed by the Fed.
- 2008 March 25: Iceland's interest rate rises to 15% after a 22% drop in the krona.
- 2008 March 25: Spread-betting firm IG-Index doubles (from 5% to 10%) its margin for bank stocks; for four banks (Alliance & Leicester, Anglo Irish, Bradford & Bingley, and Lehman Brothers) its margin is 20%.
- 2008 March 25: *The Economist* reports that U.S. farmers are having trouble hedging wheat prices because of excessive margin requirements.
- 2008 April 2: UBS has lost \$38 bn betting on U.S. mortgage-backed assets, 'mezzanine' CDOs, after taking the AAA ratings as correct and assuming liquidity.
- 2008 April 3: At the end of 2007 Northern Rock owed the U.K. tax-payer \$53.5 bn.

- 2008 April 6: George Soros declares that he is ‘short U.S. and European stocks, U.S. ten-year government bonds, and the U.S. dollar; and long Chinese and Indian stocks and non-U.S. commodities.’
- 2008 April 8: U.K. housing prices fell 2.5% in March.
- 2008 April 10: Eight months before the National Bureau of Economic Research (NBER) gives its official imprimatur, *The Economist* declares that the U.S. is in recession. The NBER would announce in early December 2008 that the U.S. had been in recession since December 2007.
- 2008 April 17: The International Swaps and Derivatives Association (ISDA) reports that over-the-counter derivatives at the end of 2007 totalled \$455 trillion globally, of which \$62 trillion were CDSs. Global nominal Gross Domestic Product (GDP) was estimated at \$54.5 trillion in 2007. (In December 2008, the derivatives market is \$531 trillion, up from \$106 trillion in 2002.)
- 2008 April 17: In 1989 financial stocks were 8.8% by value of the Standard & Poor’s 500; by Q1 2007 this had grown to 22.3%. From a 10% share of corporate profits in the early 1980s, the U.S. financial services industry’s share was 40% in 2007. In the early 1980s, U.S. financial assets were worth about 450% of GDP; in 2007, about 1000%.
- 2008 April 17: U.K. banks Royal Bank of Scotland (RBS) and Bradford & Bingley are trading at a market cap of between 3 and 4% of their deposits. U.S. banks are priced at between 15 and 30% of their deposits.
- 2008 April 21: The Bank of England announces its ‘Special Liquidity Scheme’ of \$100 bn to allow banks to swap their AB securities for more liquid Treasury Bills as a means of reducing counterparty risk in interbank lending.
- 2008 April 22: RBS announces the largest rights issue in U.K. history to raise \$24 bn in new capital to offset a write-down of \$12 bn resulting from bad investments and the earlier purchase of ABN-Amro. RBS has core capital equal to 4.5% of its assets.
- 2008 April 24: Lehman Brothers reports a net profit of \$489 million in Q1 2008; Merrill Lynch and Citigroup lost a combined \$7.1 bn in Q1 2008.
- 2008 April 24: The Iceland krona has fallen 30% against the Euro in four months, and Icelandic banks cannot borrow from other banks.
- 2008 June 2: Wachovia, the fourth-largest U.S. bank, replaces its CEO, after losing \$707 million in Q1.
- 2008 June 9: Lehman Brothers announces a Q2 loss of \$2.8 bn, far higher than analysts had expected; will seek to raise \$6 bn in fresh capital from investors.

- 2008 June 15:       AIG, the world's largest insurer, replaces its CEO after \$13 bn losses in Q4 2007 and Q1 2008; it announces plans to raise \$20 bn in fresh capital.
- 2008 July 3:       Apparently concerned about rising inflation, the ECB raises its bid rate by 25 bp to 4.25%.
- 2008 July 11:       Indy Mac bank collapses, with assets of \$32 bn and deposits of \$19 bn. Eight other banks have failed in 2008 and the U.S. Federal Deposit Insurance Corporation (FDIC) has 117 banks on its 'problem list' in Q2 2008, up 30% in three months. Wachovia's share price has fallen by three-quarters in six months.
- 2008 July 13:       The share prices of Fannie Mae and Freddie Mac are less than one sixth their values of a year earlier.
- 2008 July 17:       Merrill Lynch announces a \$4.9 bn loss for Q2, after write-downs of \$9.7 bn, bringing total charges since mid-2007 to more than \$41 bn.
- 2008 July 26:       The U.S. FHA will guarantee up to \$300 bn refinanced mortgages. The Federal debt limit is raised to \$10.6 trillion.
- 2008 July 28:       Merrill Lynch writes down a further \$4.4 bn, selling \$30.6 bn of CDOs at 22% of par.
- 2008 August 9:       Large European banks report falls in earnings of between 28% and 63% one year after the start of the credit crunch.
- 2008 August 21:     ABC Learning's shares are placed in a trading halt; it is the world's largest private provider of childcare services, with a market capitalisation reaching A\$2.5 bn in March 2006.
- 2008 September 7:   The U.S. government announces a takeover of Fannie Mae and Freddie Mac, committing to provide up to \$100 bn to each company to cover any shortfalls in capital. The CEOs of both quasi-governmental agencies are replaced, and dividend payments to current shareholders eliminated. The two hold or guarantee \$5 trillion, about half of all U.S. mortgage debt.
- 2008 September 8:   Washington Mutual, the sixth-largest U.S. bank, replaces its CEO.
- 2008 September 10:  Lehman Brothers says that it will spin off a majority of its remaining commercial real estate holdings into a new public company. And confirms plans to sell a majority of its investment management division in a move expected to generate \$3 bn. It also announces an expected loss of \$3.9 bn (\$5.92 a share) in Q3, after \$5.6 bn in write-downs. Korean Development Bank decides against buying a stake in Lehman.
- 2008 September 15:  Lehman Brothers, with \$613 bn of debt including \$160 bn of unsecured bonds, files for bankruptcy protection; its major assets are later sold to Barclays, Nomura, Bain Capital, and Hellman & Friedman; those holding its commercial paper (bonds) will receive about 10% of par.

- 2008 September 15: Merrill Lynch to be bought by Bank of America at half its early 2007 value; B. of A. had earlier decided against buying Lehman.
- 2008 September 16: AIG is bailed out by the Fed, with an \$85 bn infusion. The government takes 79.9% of the company, whose share price has recently fallen to 5% of its level 18 months previously.
- 2008 September 17: Losses from the Lehman default result in the Reserve Primary Fund, the oldest U.S. money-market fund, ‘breaking the buck’—going into the red.
- 2008 September 18: The U.S. Treasury announces a three-page, \$700 bn proposal to buy toxic assets from U.S. banks. It requires Congressional approval.
- 2008 September 18: The U.S. SEC prohibits ‘naked’ short selling.
- 2008 September 18: Lloyds buys HBOS, with 20% of the mortgage market, Britain’s largest mortgage lender.
- 2008 September 18: The Fed, the Bank of England, the Bank of Japan and other central banks promise up to \$180 bn to boost liquidity.
- 2008 September 21: Goldman Sachs and Morgan Stanley convert to bank holding companies, to receive bank oversight and support from the Fed. Goldman Sachs sells \$5 bn shares to Warren Buffett’s Berkshire Hathaway and raises \$5bn more on the equity markets.
- 2008 September 21: The Australian government regulator temporarily bans short selling of any stocks, following a ban on ‘naked’ short selling on September 19.
- 2008 September 25: The U.S. SEC abolishes the 2004 ‘Consolidated Supervised Entities’ program.
- 2008 September 25: Washington Mutual Bank is placed in receivership, after a ten-day bank run of \$16.7 bn; it is partly sold to JPMorgan Chase for \$1.9 bn.
- 2008 September 28: The Benelux governments jointly nationalise Fortis, at Euro 11.2 bn.
- 2008 September 29: The House rejects Treasury’s \$700 bn proposal. The S&P 500 plunges almost 9% (over \$1 trillion). The LIBOR shoots up to 6.88%.
- 2008 September 29: U.K. bank Bradford & Bingley is nationalised at \$80 bn and partly sold off, after its unsuccessful June rights issue.
- 2008 September 29: Mitsubishi UFJ Financial Group pays \$9 bn for a 25% stake in Morgan Stanley.
- 2008 September 30: Icelandic bank Glitnir is nationalised at \$1 bn. The other two largest Icelandic banks follow on October 7 (Landsbank) and October 9 (Kaupthing). The banks’ total liabilities are ten times the country’s GDP; the stock market falls by 90%, along with the krona.

- 2008 October 3: Following the Senate, the House passes a revised and amended version of the Treasury \$700 bn proposal to create the Troubled Asset Relief Program (TARP). Bank deposits of up to \$250,000 are guaranteed, previously \$100,000.
- 2008 October 3: Wells Fargo wins the battle against Citigroup to buy the failed Wachovia Bank, for about \$15 bn. Later attempts to block the deal are unsuccessful.
- 2008 October 3: The TED spread is up to 330 bp (from 20 bp in early 2007).
- 2008 October 4: The Irish government announces that it will guarantee all deposits (\$575 bn) in six Irish banks. The German government follows suit a day later. The European Union responds similarly two days after that.
- 2008 October 5: Hypo Real Estate is bailed out with a Euro 50 bn credit guarantee from the German government.
- 2008 October 7: HBOS and Lloyd's have lost almost 40% of their market value.
- 2008 October 7: The Fed will buy commercial paper, thus extending short-term loans to companies for the first time.
- 2008 October 7: In front of the Congressional Committee on Oversight and Government Reform, Lynn Turner, former chief accountant at the SEC, reveals that the SEC's Office of Risk Management was cut back to a single employee.
- 2008 October 8: The U.K. government policy for bailing out the financial system is announced. The Treasury will infuse \$64 bn of new capital into RBS, Lloyds TSB, and HBOS, with the government taking equity stakes in any banks bailed out.
- 2008 October 12: The Australian government announces a guarantee up to A\$1 million on bank deposits, and a wholesale funding guarantee. New Zealand also guarantees its bank deposits.
- 2008 October 13: The U.S. government outlines a three-part rescue package involving the Treasury and the FDIC of at least \$250 bn. It may also involve direct recapitalisation of banks.
- 2008 October 15: The Baltic Dry Index (a proxy for world shipping) has fallen 85% from its May record high. Spot iron-ore prices have fallen to half in ten months, along with other metals prices. Oil prices continue to fall.
- 2008 October 23: Credit markets revive. The LIBOR falls to 4.96%, the lowest since Lehman Brothers' collapse. The TED spread also narrows after the Fed makes \$540 bn available to buy assets from money-market funds. The ECB has lent European banks \$1 trillion.
- 2008 October 23: Alan Greenspan admits in front of a congressional hearing that he was 'partially' responsible by not advocating regulation of derivatives; he confesses a flaw in his ideology that banks could be trusted to be 'self-interested' in serving their shareholders.

- 2008 October 27: The Japanese Financial Services Agency bans 'naked' short selling from November 4 to March 31. Mitsubishi UFJ Financial Group (Japan's largest bank) needs \$10.6 bn to cover its dwindling capital after the Nikkei plunges.
- 2008 October 27: The International Monetary Fund (IMF) bails out Hungary and Ukraine.
- 2008 October 29: The U.S. cash rate drops 50 bp to 1%, down from 5.25% in mid 2007.
- 2008 October 31: The Japanese lower their policy rate 20 bp to 0.3% and announce a fiscal stimulus of \$51 bn.
- 2008 November 1: The IMF introduces a new short-term lending facility for emerging economies facing temporary liquidity problems.
- 2008 November 4: Allco Financial Group chooses to go into voluntary administration, after its share price had fallen by 99% in less than 18 months. Allco was part of the consortium that unsuccessfully tried to take QANTAS over in May 2007.
- 2008 November 5: The Reserve Bank of Australia (RBA) lowers the cash rate by 75 bp to 5.25%, following an October cut of 100 bp and a September cut of 25 bp.
- 2008 November 6: The Bank of England cuts the benchmark rate by 150 bp to 3%, the sixth cut since late 2007, when the rate was 5.75%. The ECB cuts its rate by 50 bp to 3.25%, its second cut since July, when the rate was 4.25%.
- 2008 November 6: ABC Learning is forced into the hands of the receivers and administrators after the auditors failed to sign off its accounts.
- 2008 November 7: Ford and G.M. announce Q3 losses of \$3 bn and \$4.2 bn, respectively.
- 2008 November 9: China announces a fiscal stimulus of almost \$600 bn.
- 2008 November 10: The U.S. Treasury announces a new rescue package for AIG, bringing the total cost to \$150 bn.
- 2008 November 12: The U.S. Treasury announces it will use the \$700 bn TARP to recapitalise banks and other financial institutions, rather than buying their toxic mortgage-backed assets.
- 2008 November 19: The Swiss government proposes a \$5 bn bailout of UBS, which has written off over \$45 bn, as well as assuming up to \$60 bn of toxic assets, and taking a 9.3% stake in the bank.
- 2008 November 24: The U.S. government bails out Citigroup, using a loss-sharing agreement with the Treasury's TARP. The bailout could cost taxpayers up to \$300 bn.
- 2008 November 27: China cuts rates by 108 bp.
- 2008 November 25: BHP withdraws its hostile bid for Rio Tinto, citing Rio's high level of debt (\$45 bn) after the Alcan purchase, inter alia.
- 2008 December 2: The RBA lowers the cash rate by 100 bp to 4.25%. Australian inflation is at 5% in late October. The Australian dollar has fallen 28% against the U.S. dollar since end-July.

- 2008 December 3: Babcock & Brown's shares trade at A25 cents, down from A\$35.18 17 months earlier.
- 2008 December 5: From a high of \$147/bbl five months earlier, the world price of oil has dropped to \$41/bbl.

### *The Papers*

At the beginning of 2008, policy makers in Canberra were concerned with the prospect of increased price inflation, as the Australian economy, selling iron ore and coal to the burgeoning economies of Asia, bumped up against capacity constraints in infrastructure and the labour market. Ten and a half months later, it's almost another era. Nevertheless, this too will pass, and again we shall be concerned about managing inflation.

Walsh and Tan (2008) analyse the effects of Australia's adoption of a monetary policy targeting inflation, formalised in 1996. They find that since 1990, unanticipated adjustments to Australian monetary policy have had a significantly larger impact on the term premium, a proxy for perceived interest-rate uncertainty, than previously. As monetary policy is used by lowering the cash rate to stimulate the economy (by encouraging business investment and consumer spending), as a response to the spill-over effects of the financial crisis, with the increased volatility of the recession upon us, this paper provides a framework for considering the impact of unannounced events on the term structure of interest rates.

One of the many disturbing aspects of the financial crisis is the evidence that the credit-rating companies are involved in a potential conflict of interest: they are paid by the financial companies whose products they rate. Just what degree of regulation eventuates is not yet clear, but there have been some egregious examples of financial instruments rated well above their actual risk quality levels. The paper by Treepongkaruna and Tanthanongsakkun (2008) mentions credit-ratings models based on accounting ratios in order to discriminate between 'good' and 'bad' firms, based on these accounting measurements of their performance. The paper continues, however, to develop an option-pricing model, first elaborated by Merton (1974), together with the firm's size and its book-value-to-market-value ratio, in order to argue that this market-based model provides a better explanation of firms' credit ratings than do the accounting-based models.

A truth universally acknowledged is that the worst financial crisis in a century was triggered by the combination of falling housing prices in the U.S.A., the so-called sub-prime mortgage, and the collateralised debt obligations in which the mortgages had been cut, diced, repackaged, and on-sold. Early self-satisfaction on this side of the water that we Australians had virtually no 'low-doc' mortgages, no 'non-recourse' mortgages (in which the householders' mortgage debt to the bank is extinguished by forced sale of the foreclosed house, whatever the price fetched), and so would be spared others' pain of market readjustment has been revealed to be illusory, although some still hope that we will be spared the worst that the other countries might suffer. Daniel (2008) devises a loan-prepayment model for the Australian variable-rate mortgage market, in order to explain the full and partial prepayment features of loans of Australian mortgage-backed securities.

One of the most frequently used mechanisms for raising equity capital for publicly traded firms in Australia is little understood. Brown, Ferguson and Stone

(2008) examine the mechanism of share-purchase plans, offered exclusively to a firm's shareholders, who can buy at a discount to the market and with no brokerage charges. The authors are able to distinguish the market characteristics of firms that have adopted share purchase plans, depending on levels of liquidity, numbers of shareholders, size of the issue, the price discount, the industry, the participation of new shareholders, the auditor, and whether the issue was underwritten.

As Ray Ball<sup>1</sup> (2008), the Foundation editor of the *Australian Journal of Management*, described in an address at the University of New South Wales last July, banks' capital ratios are regulated by the government, while non-bank financial institutions, in the U.S.A. at any rate, are restrained by undertakings ('covenants') they have given to their debtors on their capital adequacy. For instance, Bear Stearns was wound up by its debtors after the collapse in asset prices meant that it was in breach of its covenants. The need for non-bank institutions, such as credit unions, to increase their capital, perhaps because of regulatory changes, without issuing equity, has led to the use of what Hodgson and Hodgson (2008) call 'marketing communication expenditure', in order to increase the institutions' revenue and so their capital. They analyse the impacts of MCE on the risk-adjusted financial positions of NSW credit unions over the period of 1988-1994.

A line of research with no echo of the global financial crisis is Wynder (2008), in which the design of management accounting cost control system is examined, together with the involvement of employees in continuous-improvement programs. Wynder distinguishes between the provision of activity-based cost information, and the traditional volume-based cost information. He finds greater overhead cost reduction per employee recommendation when activity-based cost information is provided to employees.

As I argued in the editorial in the June 2008 issue of the *Journal* (Marks, 2008), the global credit crisis was triggered by asymmetric information about the quality (riskiness) of banks' asset portfolios (the counterparty risk to other banks' lending), which meant that the inter-bank credit markets virtually froze after Lehman Brothers' collapse in mid-September. In a paper written much earlier, Chang et al. (2008) address the issue of the disclosure of the quality (riskiness) of assets. They argue that the asymmetry of information between firms and would-be investors can be reduced through effective investor-relations programs. Specifically, they propose a checklist to evaluate a firm's Internet-based investment-relations practices, and measure the impacts on the firm's analysts, institutional shareholders, trading, and market capitalisation.

To what extent do taxes in the spot market for shares influence the market for futures contracts in general, and for stock index futures in particular? Cummings and Frino (2008) estimate the impact of the debt tax shield, cash dividends, and imputation tax credits on the prices of Australian stock index futures. They conclude that tax effects are as pervasive in the futures market as they are in the spot market.

To what extent can the law effectively reduce or prevent insider trading, where insiders attempt to profit from their knowledge of imminent stock-price-sensitive events? The final paper, by Gilbert and Tourani-Rad (2008), examines the

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1. Ray is the Sidney Davidson Professor of Accounting at the Graduate School of Business, the University of Chicago.

impact of major regulatory changes in New Zealand law on the incidence and profitability of insider trading. They argue that the changes reduced both its incidence and profitability, and conclude that well-constructed insider-trading laws can effectively minimise the most ‘harmful’ effects of insider trading.

The issue concludes with a review of an anthology on innovation management in Australia, edited by Cebon, addressing the relative lack of successful innovation here. This book review, by Mike Vitale, is one in a series of three written by ex-deans of the (now-defunct) Australian Graduate School of Management—Jeremy Davis and Rob McLean wrote earlier reviews.

### *Housekeeping*

The *Journal*'s foundation editor, Ray Ball, was ably assisted in its production by Pat Hillary, his secretary. (Because there were no tutors at the AGSM, academics shared secretaries to help with their teaching loads.) Pat handled the incoming papers, correspondence with the authors, the area editors, and the reviewers, as well as producing the camera-ready galleys for the printer on a daisy-wheel printer, using the Unix troff text-processing software. Pat retired from the University a few years ago, and recently died after a long illness. I attended her funeral, having encountered her waiting for her grand-daughter in Bondi Junction a few months before. Rest in peace, Pat, from all associated with the *Journal* in the over ten years you were its backbone.

As Mark Twain might have said, reports of my retirement as the *Journal*'s editor have been exaggerated. We have been in discussion with a publishing company, and in the hope that agreement is secured with them I have agreed to continue as General Editor for another eighteen months. More anon.

**Robert E. Marks**

*General Editor*

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## A Note from the Editors

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